SHARE
Save Hearts in Arizona Registry & Education
CPR and AED Training
for the non-medically trained individual

PART 1 Didactic: 15 minutes

250,000 people die every year because they suffered a cardiac arrest outside of the hospital

What is cardiac arrest?
Simply stated, cardiac arrest is when the heart is no longer pumping blood through the body. The victim is unconscious, not breathing and has no pulse. If not immediately treated the victim will most probably die.

Cardiac arrest and heart attack are not the same thing. A heart attack can cause a cardiac arrest, but there are other causes. What you need to remember is, regardless of what caused the cardiac arrest –good skills and rapid treatment are the keys to survival. For every minute that passes after a victim suffers a cardiac arrest their chances of survival decrease by about 10%. At 10 minutes after collapse they have a minimal chance of surviving. So, do whatever you can do as fast as you can do it!

The American Heart Association has simplified this urgency into the **CHAIN OF SURVIVAL**:

1. Early Access ----------CALL 911
2. Early CPR -------- -------START CHEST COMPRESSIONS
3. Early Defibrillation-------USE AN AED
4. Early Advanced Care---PARAMEDICS

In most cases, paramedics just can't respond and arrive at the patient's side quickly enough for the patient's sake. Now that AEDs are available to non-medically trained people, **YOU** can become a vital link in this chain of survival.

What is an AED?
An Automated External Defibrillator (AED) is a smart machine designed to detect whether a cardiac arrest victim would benefit from a defibrillation shock and to instruct the operator to perform all facets of treating the victim until paramedics arrive. An AED is simple and safe to use.

The heart is much like any other highly efficient machine; it has an electrical system that tells the heart to pump and a mechanical system that responds by pumping. The AED is designed to analyze the heart rhythm and allow a shock delivered to those patients whose electrical system is malfunctioning in a rhythm called ventricular fibrillation. This rhythm is a chaotic quivering of the heart and is the most frequent rhythm in a cardiac arrest. By delivering a shock this chaos is stopped so the heart's natural pacemaker can resume a regular rhythm, once again pumping blood around the body. Successful defibrillation diminishes rapidly over time. If the victim is not in ventricular fibrillation the AED will instruct you to perform CPR. The AED instructs you every step of the way.

What is the liability?

Any person who uses an AED to help a cardiac arrest victim is protected against liability under the Good Samaritan Law that exists in every state. In Arizona it is Arizona Revised Statute (ARS) 36-2262.

What is the danger?
AEDs will not allow a shock unless it detects ventricular fibrillation. You cannot make it shock any other time. You cannot harm the victim in any way. The only possible danger is if:

1. You are "sharing" water with the victim. If the victim is in a puddle of water, move them to a dry area. You don't want your knees in the victim's puddle of water! Water conducts electricity.
2. You are "sharing" metal with the victim. Just make sure the patient is not touching any kind of metal. Metal conducts electricity.
3. Make sure no one is touching the patient when a shock is delivered. Always visually confirm this before pushing the shock button.
4. Do not use an AED on anyone under 8 years old.

What if the victim has a pacemaker?
There is no harm in using an AED on a person with a pacemaker. Just don't place the electrode directly over the pacemaker.

PART 2 AED DEMONSTRATION: 10 min

Regardless of manufacturer, briefly cover all of the following:

1. Power on AED
2. Electrode placement – (offer a visual image that in order for the shock to go through the heart – the heart must be "sandwiched" between the electrodes)
3. Following voice prompts
4. Delivering shock
5. No shock advised instruction
6. Battery
7. Device daily/weekly/monthly check-out
8. Accessories
9. Where they will be kept
10. Who to contact with questions/problems regarding the AED

PART 3 CHEST COMPRESSION DEMONSTRATION: 10 min.

1. Where to place hands
2. How to hold arms
3. How fast and how deep compressions should be

(Offer a visual image by telling them to envision the heart being squeezed sufficiently between the spine and breastbone to force the blood out of the heart and around the body)

BE SURE TO SPECIFY THAT THIS METHOD WITHOUT VENTILATIONS IS FOR ADULTS PATIENTS ONLY -CHILDREN MUST RECEIVE STANDARD CPR.

PART 4 AED AND CHEST COMPRESSION PROTOCOL DEMONSTRATION 10 min.

1. Assess the patient – Conscious? NO Breathing? NO
2. Start chest compressions simultaneous with "you, call 911 and you, bring the AED"
3. Continue chest compressions until AED arrives
4. AED is placed at the side of the victim's head and turned on. Chest compressions continue.
5. Remove clothing and dry or shave chest if necessary.
6. Attach electrodes to patient's chest
7. "Stand Clear" so AED can analyze. Do not touch the patient.
8. Prior to delivering shock look around and state "I'm clear, you're clear, everyone is clear"
9. Deliver the shock.
10. Allow the AED to re-analyze.
11. Follow voice prompts for additional shocks as above or if NO SHOCK is advised begin chest compressions and continue following voice prompts.
12. When the paramedics arrive, as they take over care of the patient, tell them what you know of the patient and how may, if any, times the AED shocked the patient.

REMEMBER:
At all times you are either performing **chest compressions** or doing what the **AED** is instructing you to do. If the patient responds to defibrillation and begins moving, breathing or opening their eyes, comfort the patient, leave the AED attached and watch them carefully until paramedics arrive.

Part 5: HANDS ON PRACTICE – time dependant on number of attendees

Each attendee practices with the AED and mannequin as 1-12 in Part 4 using the training checklist attached.